

WE CLAIM:

1. A sewing machine comprising:
 - a sewing machine body provided with a cassette mount;
 - 5 a thread cassette having a supply of thread and detachably attached to the cassette mount; and
 - a moving speed limiting unit limiting a moving speed of the thread cassette when the thread cassette is attached to the cassette mount.

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2. A sewing machine according to claim 1, wherein the moving speed limiting unit includes a rack provided on the thread cassette so as to extend in a predetermined direction, a pinion provided on the sewing machine body so as to mesh the rack, and a rotational resistance applying unit applying rotational resistance to the pinion.

3. A sewing machine according to claim 2, wherein the pinion is displaced between a meshing position where the pinion meshes the rack and a retreat position where the pinion is disengaged from the rack, and the moving speed limiting unit includes a switching mechanism switching the pinion to the meshing position when the thread cassette is attached to the cassette mount and to the retreat position when the thread cassette is detached from the cassette mount.

4. A sewing machine according to claim 3, wherein the switching mechanism includes a biasing member biasing the pinion

to the retreat position, a switching guide member provided on the thread cassette to switch the pinion from the retreat position to the meshing position against a biasing force of the biasing member when the thread cassette is attached to the cassette mount
5 and further to guide the rack.

5. A sewing machine according to claim 1, further comprising:
a threading mechanism passing a thread through an eye of a sewing needle;

10 a first operating force transmitting member moved when receiving an operating force transmitted from the thread cassette during attachment of the thread cassette, thereby operating the threading mechanism by means of movement thereof;

15 a thread carrying mechanism carrying the thread near the needle eye in order that the thread may be passed through the needle eye; and

20 a second operating force transmitting member moved when receiving an operating force transmitted from the thread cassette during attachment of the thread cassette, thereby operating the thread carrying mechanism.

6. A sewing machine comprising:

a sewing machine body provided with a cassette mount;

25 a threading mechanism passing a thread through an eye of a sewing needle;

an operating force transmitting member moved when an operating force is transmitted from the thread cassette thereto during attachment of the thread cassette, thereby operating the

threading mechanism by means of movement thereof; and
a moving speed limiting unit limiting a moving speed of the
operating force transmitting member.

- 5 7. A sewing machine comprising:
 a sewing machine body provided with a cassette mount;
 a thread carrying mechanism carrying a thread near an eye
of a sewing needle in order that the thread may be passed through
the needle eye;
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- 10 an operating force transmitting member moved when an
operating force is transmitted from outside the thread carrying
mechanism thereto, thereby operating the thread carrying
mechanism by means of movement thereof; and
 a moving speed limiting unit limiting a moving speed of the
15 operating force transmitting member.

8. A thread cassette comprising:
 a cassette body having a supply of thread and detachably
attached to a cassette mount provided in a sewing machine; and
20 a moving speed limiting unit limiting a moving speed of the
thread cassette when the thread cassette is attached to the
cassette mount.

9. A thread cassette according to claim 8, wherein the moving
25 speed limiting unit includes:
 a rack provided on the cassette body;
 a pinion provided on the sewing machine body so as to mesh
the rack;

a rotational resistance applying unit applying rotational resistance to the pinion; and

a switching mechanism switching the pinion so that the pinion meshes the rack and the rack is guided when the thread cassette
5 is attached to the cassette mount and so that the pinion is prevented from meshing the rack when the thread cassette is detached from the cassette mount.

10. A thread cassette according to claim 9, wherein the
10 rotational resistance applying unit uses a liquid to apply the rotational resistance.

11. A thread cassette according to claim 9, wherein the
rotational resistance applying unit uses a gas to apply the
15 rotational resistance.